REMARKS/ARGUMENTS

Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow. Claims 1, 3, 4, 6, 7, and 11 have been amended. Applicant respectfully submits that no new matter has been added. Claim 2 was canceled in a previous response. As such, Claims 1 and 3-12 are now pending in this application.

I.   Requirement to Furnish a Drawing Under 37 C.F.R. § 1.81(c)

In section one of the Office Action, the Examiner stated that the "subject matter of this application admits of illustration by a drawing to facilitate understanding of the invention. Applicant is required to furnish a drawing under 37 C.FR 1.81(c). In response, Applicant is submitting herewith a new drawing sheet which includes a Figure 1. Applicant respectfully submits that Figure 1 does not add any new matter to the application. Entry of the drawing is respectfully requested.

The specification was amended to provide a description of the newly-added Figure. Applicant submits that the amendment to the specification does not add new matter.

II.   Claim Rejections Under 35 U.S.C. § 112

On pages 2-3 of the Office Action, Claims 1, 3, and 4-6 were rejected under 35 U.S.C. § 112 as not having support in the specification. The Examiner has listed several claim elements and stated that the elements were "not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention." Applicant respectfully submits that the rejection by the Examiner is inadequate. Section 2163 of the MPEP states that "[a] **description as filed is presumed to be adequate unless or until sufficient evidence or reasoning to the contrary has been presented by the examiner** to rebut the presumption." (Emphasis added). Section 2163 of the MPEP goes on to state that:

> The examiner, therefore, must have a reasonable basis to
> challenge the adequacy of the written description. The
> **examiner has the initial burden of presenting by a**

> **preponderance of evidence why a person skilled in the art would not recognize in an applicant's disclosure a description of the invention defined by the claims**. *Wertheim*, 541 F.2d at 263, 191 USPQ at 97. In rejecting a claim, the **examiner must set forth express findings of fact regarding the above analysis which support the lack of written description conclusion**.

(Emphasis added). Applicant respectfully submits that listing various claim elements and stating that they are unsupported by the specification does not satisfy the Examiner's burden to "set forth express findings of fact ... which support the lack of written description conclusion," as required by MPEP § 2163. As such, Applicant respectfully requests withdrawal of the rejection under 35 U.S.C. § 112. In addition, as discussed in detail below, Applicant respectfully submits that the specification does provide support for the pending claims.

A.   Claims 1 and 3

On page 2 of the Office Action, the Examiner states that "identifying a plurality of nodes which form a communication path" was "not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention." (Emphasis in original). Applicant respectfully disagrees. The Examiner also states that "a plurality of signals which are received at a rate of one signal per time interval" was "not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention." (Emphasis in original). Applicant respectfully disagrees. However, in the interest of furthering prosecution, Applicant has amended Claim 1 to remove "identifying a plurality of nodes which form a communication path" and "a plurality of signals which are received at a rate of one signal per time interval."

The Examiner also states that "identifying, based at least in part on a bandwidth between the first node and the second node, a second time interval" was "not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention."

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(Emphasis in original). Applicant respectfully disagrees. Paragraph [0007] of the present application states in part that:

> <u>Not all links along the selected nodes communicates at the same rate</u>. Say the single Voice signals above traverse nodes A, B, C, D and the links **A-B communicates at 6.4 Megabits/sec, B-C at 6.4 Gigabits/sec & C-D at 6.4 Megabits/sec**, node A will be prearranged to **automatically switch incoming transmission** (PCM digitised {fraction (1/10)} second 4 KHz analog signals) **onto node B starting at Time 0 for 1/thousandth of a second duration**. The 1/thousandth of a second duration transmission arriving at node B between Time 0 & Time 0+1/thousandth second is **automatically switched at Time 0 onto node C for same 1/thousandth of a second duration** (ie interleaved time multiplexed, regularly allocated one slot for every 1,000 th slots in the 6.4 Gigabits/sec transmission bandwidth during the 1/thousandth of a second prearranged time period). The 1/thousandth of a second duration transmission arriving at node C between Time 0 & Time 0+1/thousandth second will be automatically demultiplexed to obtain the PCM Voice signals **to be automatically switched onto destination node D** arriving during Time 0 & Time 0+1/thousandth second (the 1/thousandth of a second time period here is the time period required for {fraction (1/10)} second interval Voice speech to be transmitted **along the link of the lowest communication rate**, ie link A-B/C-D).

(Emphasis added). Thus, the specification provides an example of communicating along a path of nodes (A, B, C, and D). The communication rate between nodes A and B and between nodes C and D is 6.4 Megabits/second in the example. The communication rate between nodes B and C is 6.4 Gigabits/second in the example. As indicated in Paragraph [0007], the communication is implemented in accordance with "the link of the lowest communication rate." Claim 1 has been amended to recite a "communication rate" instead of bandwidth for clarification. In the example, the lowest communication rate is 6.4 Megabits/second. As such, an interval of one thousandth of a second is identified for implementing the communication. If lowest communication rate between any of the nodes were 6.4 Gigabits/second, an interval of one millionth of a second may be identified for implementing the communication. See paragraph [0005], which states that "the 4 KHz

analog signals at say 1/10 second intervals are ... time division concentrated/multiplexed ... by the caller side node/ITSP (**as 1/millionth of a second duration digital transmissions**) onto say the **6.4 Gigabits/sec** transmission link (ie **equates to the communications rate of the lowest link along the nodes**) ...." (Emphasis added). Thus, the specification clearly discloses identifying a second interval based on a communication rate between nodes. In the example of paragraph [0005], the second interval was one millionth of a second because the lowest communication rate was in the Gigabits/sec range, and in the example of paragraph [0007], the second interval was one thousandth of a second because the lowest communication rate was in the Megabits/sec range.

The Examiner also states that "wherein the second time interval occurs within the time interval following receipt of the signal" was "not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention." (Emphasis in original). Applicant respectfully disagrees. However, to further clarify Applicant's claimed invention, Applicant has amended this phrase to read "wherein the second time interval occurs after receipt of the signal." This aspect is fully supported by the specification. Paragraph [0005] states that "[t]he total delays between the speech at caller & reception at recipient here is 1/10 second plus 2 x analog/digital conversion delays (~30 msec), ie total fixed delay of 0.16 second regardless of distance (ignoring the time for the uncompressed signals to travel along the transmission medium)." Thus, in the example of paragraph [0005], there is a 1/10 second delay (in addition to conversion and travel delays) for the signal to be received by the recipient.

One of the examples provided in the specification is of a telephone call with analog voice data being the signal transmitted. In that example, analog voice data is received during a first 1/10 time period (which for convenience can be referred to here as "T2-1"). The 'second interval' (which is one thousand of a second and one millionth of a second in the examples) can occur during a second 1/10 time period following the first 1/10 time period. The analog voice data from the first 1/ time period can be transmitted during the (one thousand of a second, one millionth of a second, etc.) 'second interval.' Analog voice data

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received during the second 1/10 time period can be transmitted during a subsequent 'second interval' (of one thousand of a second, one millionth of a second, etc.) which can occur during a third 1/10 time period, and so on. Further, it would not be possible to transmit the signal in the second interval until after the signal is received in the first interval.

The Examiner further states that "wherein the signal is transmitted during the second time interval" was "not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention." (Emphasis in original). Applicant respectfully disagrees. Paragraph [0005] of the present application states that

> [T]he 4 KHz analog signals at say 1/10 second intervals are ... time division concentrated/multiplexed along with regular IP packets traffics by the caller side node/ITSP ... **to the next node (which in turn automatically switches the transmissions onto the next node, & so forth)** along the Time Multiplexed Circuit Connection as raw unpacketised digital signals ... **at the precise prearranged 1/millionth of a second time period where the Time Multiplexed Circuit Connection between Source & destination is established**.

(Emphasis added). Thus, it is clear that, in the example of Paragraph [0005], the signal is transmitted from the source node to next node, "onto the next node, & so forth" at the "precise prearranged 1/millionth of a second time period" (i.e., the exemplary second interval).

For at least these reasons, Applicant respectfully submits that Claims 1 and 3 are adequately supported by the specification. Applicant respectfully requests withdrawal of the rejection under 35 U.S.C. § 112.

B.   Claim 4

With respect to Claim 4, on pages 2-3 of the Office Action, the Examiner states that "wherein the first unidirectional virtual dedicated circuit and the second unidirectional virtual dedicated circuit are used to form the communication path" was "not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the

inventor(s), at the time the application was filed, had possession of the claimed invention." (Emphasis in original). Applicant respectfully disagrees. Paragraph [0003] of the present application states in part that:

> For Duplex communication requirements, **2 unidirectional Virtual dedicated circuit connections are set up, one in each directions** (& could be of different bandwidths), preferably **along the route in both directions** with prearranged automatic switchings of transmissions at the same predetermined time periods to have similar transmission line dependant characteristics. **Half Duplex will have 2 unidirectional Time Multiplexed Circuit Connections** with only one of them needs to be maintained at any one time. The **caller & receiving side nodes/ITSP access the Worldwide Connections Manager for** simplex/halfduplex/full duplex Time Multiplexed Circuit **Connections initialisations**, monitoring & releases.

(Emphasis added). Thus, it is clear that the time multiplexed circuit connection communication path can include first and second unidirectional dedicated circuits. For at least these reasons, Applicant respectfully submits that Claim 4 is adequately supported by the specification. Applicant respectfully requests withdrawal of the rejection under 35 U.S.C. § 112.

C.   Claim 5

On page 3 of the Office Action, the Examiner states that "the recitation wherein the connection manager is further configured to multiplex the signal with one or more additional signals to form a multiplexed signal, and further wherein the multiplexed signal is transmitted from the first node to the second node during the second time interval" was "not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention." (Emphasis in original). Applicant respectfully disagrees. Paragraph [0005] of the present application recites in part that:

> [T]he 4 KHz analog signals at say 1/10 second intervals are ... time division concentrated/multiplexed **along with regular IP packets traffics by the caller side** node/ITSP ... to the next node (which in turn automatically switches the transmissions

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onto the next node, & so forth) along the Time Multiplexed Circuit Connection as raw unpacketised digital signals ... **at the precise prearranged 1/millionth of a second time period where the Time Multiplexed Circuit Connection between Source & destination is established**.

(Emphasis added). Thus, the example of paragraph [0005] clearly discloses multiplexing the received signal along with "regular IP packets" and transmitting the multiplexed signal "at the precise prearranged 1/millionth of a second time period" (i.e., the exemplary second interval). For at least these reasons, Applicant respectfully submits that Claim 5 is adequately supported by the specification. Applicant respectfully requests withdrawal of the rejection under 35 U.S.C. § 112.

D.   Claim 6

On page 3 of the Office Action, the Examiner states that "identify a communication path between connecting a the source and a destination, wherein the communication path includes the <u>first Internet</u> connected node and <u>second Internet</u> the connected node; and <u>identify</u> based at least in part on <u>a transmission link bandwidth</u>, <u>a second time interval within the time interval following receipt of the signal</u>, wherein the first Internet connected node is configured to transmit the signal to the second Internet connected node <u>during the second time interval without a route calculation delay</u>, and further wherein the second Internet connected node is configured to transmit the signal to a third Internet connected node along the communication path <u>during the second time interval and without the route calculation delay</u>" were "not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. (Emphasis in original). Applicant respectfully disagrees.

Support in the specification for the second time interval within the time interval following receipt of the signal and the communication path is identified above. The title of the present application is "**Internet** Time Multiplexed Circuit Connection For Wire Speed Connection ...." (Emphasis added). Further, paragraph [0002] states that "[h]ere is presented a method whereby an **Internet Time multiplexed Circuit Connection is established**

enabling data communications ...." (Emphasis added). Thus, it is clear that there is support for the nodes along the time multiplexed communication path being "Internet connected" nodes. Further, paragraph [0003] states that "[a] Worldwide Connections Manager arranges at predetermined periods all selected nodes between source & destination to automatically switch incoming signals to next node at wire speed without buffering delay/route computation delay, ..." Thus, it is clear that at least paragraph [0003] of the specification provides support for transmitting the signals at "predetermined periods" (i.e., second intervals) without "route computation delay."

For at least these reasons, Applicant respectfully submits that Claim 6 is adequately supported by the specification. Applicant respectfully requests withdrawal of the rejection under 35 U.S.C. § 112.

III.   Finality of the Present Office Action

In section 4 of the Office Action, the Examiner states that "this action is made final." However, the Examiner fails to provide any reason why the Office Action is final. Further, the Examiner has also only rejected the pending claims under 35 U.S.C. § 112. Section 2163 of the MPEP states that:

> The above only describes how to determine whether the written description requirement of 35 U.S.C. 112, para. 1, is satisfied. **Regardless of the outcome of that determination, Office personnel must complete the patentability determination under all the relevant statutory provisions of title 35 of the U.S. Code**.
>
> Once Office personnel **have concluded analysis of the claimed invention under all the statutory provisions, including 35 U.S.C. 101, 112, 102, and 103**, they should review all the proposed rejections and their bases to confirm their correctness. Only then should any rejection be imposed in an Office action.

(Emphasis added). Thus, regardless of any rejection under 35 U.S.C. § 112, the MPEP requires Examiners to "complete the patentability determination under all relevant statutory provisions," "including 35 U.S.C. 101, 112, 102, and 103." (MPEP § 2163). In the

present Office Action, the Examiner has not provided any analysis under 35 U.S.C. §§ 102 and 103, or provided any indication that the pending claims are allowable outside of the rejection under 35 U.S.C. § 112. For at least these reasons, Applicant respectfully submits that the present Office Action is incomplete, and requests withdrawal of the finality.

Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.
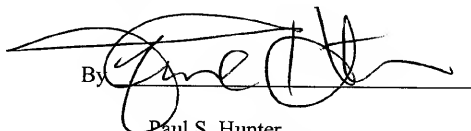
The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by the credit card payment instructions in EFS-Web being incorrect or absent, resulting in a rejected or incorrect credit card transaction, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

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